

CIRCUIT FOR PRESERVING DATA IN A FLIP-FLOP AND A METHOD OF USE RELATED APPLICATION

Abstract of Disclosure

A method and a flip-flop is disclosed in which power consumption is reduced in a standby mode. In a first aspect, the flip-flop comprises a first latch adapted to be coupled to a first power supply and a second latch coupled to the first latch and adapted to be coupled to a second power supply. The first and second power supplies are independently controllable to minimize power consumption in a standby mode. In a second aspect, a method for minimizing the power consumption of a flip-flop is also disclosed. The flip-flop includes a first latch and a second latch coupled thereto. The method comprises providing a first independently controllable power supply coupled to the master latch; and providing a second independently controllable power supply coupled to the slave latch. The method further includes reducing the voltage of at least one of the first and second power supplies responsive to the detection of a power saving mode.

Figures